

100

102

104

106

108

110

112

114

116

118

120

122

124

126

128

130

```

<schema xmlns="http://www.w3.org/2001/XMLSchema"
  xmlns:p="http://www.foo.com/personnel">
  <annotation>
    <documentation xml:lang="en">
      Personnel Directory Records for foo.com
      Copyright 2002 foo.com. All rights reserved.
    </documentation>
  </annotation>
  <element name='personnel'>
    <complexType>
      <sequence>
        <element name='employee' minOccurs='1' maxOccurs='unbounded'>
          <complexType>
            <sequence>
              <element name='lastname' type='string' maxOccurs='1'>
              <element name='firstname' type='string' maxOccurs='1'>
              <element ref='notes' minOccurs='0'>
            </sequence>
            <attribute name='serno' type='integer'>
            <attribute name='userid' type='p:USERID_TYPE'>
            <attribute name='department' type='string'>
          </complexType>
        </element>
      </sequence>
      <unique name='dummy1'>
        <selector xpath='personnel/employee'>
        <field xpath='@serno'>
      </unique>
    </complexType>
  </element>
  <element name="notes" type="string"/>
  <!-- Customized Simple data type declaration -->
  <simpleType name='USERID_TYPE'>
    <restriction base='string'>
      <pattern value="[a-zA-Z]{1}[1-9a-zA-Z]*/>
    </restriction>
  </simpleType>
</schema>

```

FIGURE 1

```
<personnel>:= PS <employee> PE  
  
<employee>:= <employee>  
  
<employee>:= <employees> <employee>  
  
<employee>:= ES <lastname> <firstname> <notes_01> EE  
  
<lastname> := LS LE  
  
<firstname> := FS FE  
  
<notes>      := NS NE  
  
<notes_01> := epsilon | <notes>
```

FIGURE 2

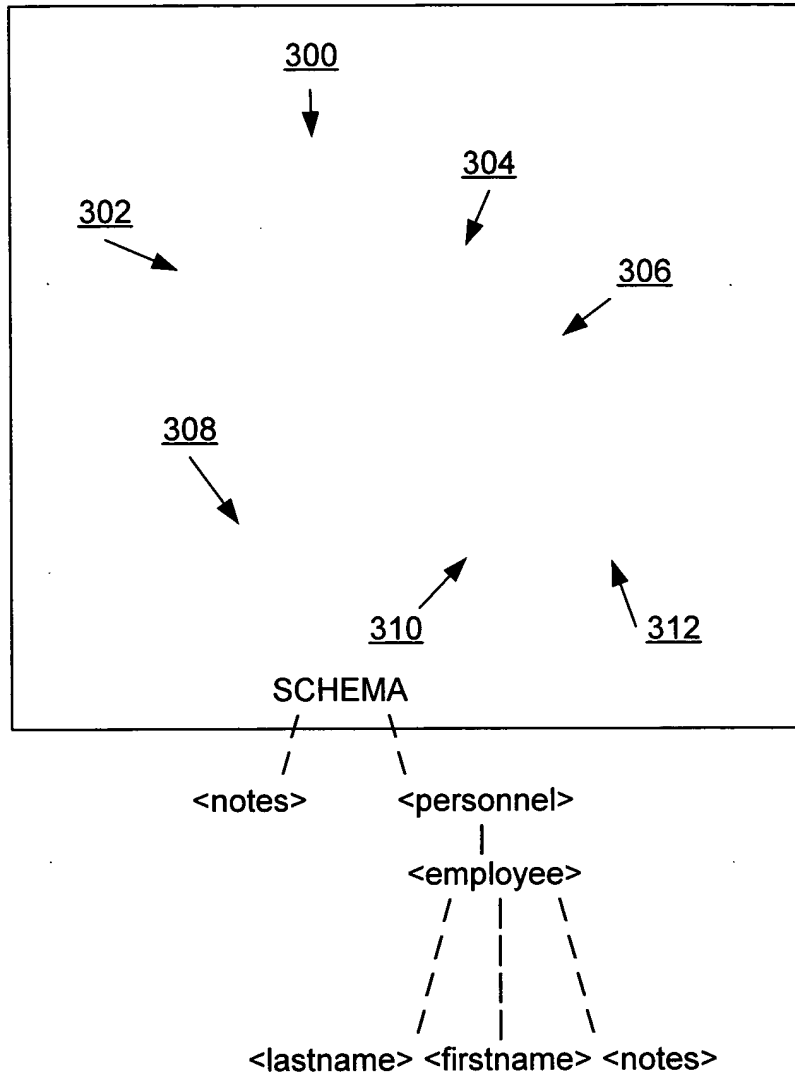


FIGURE 3

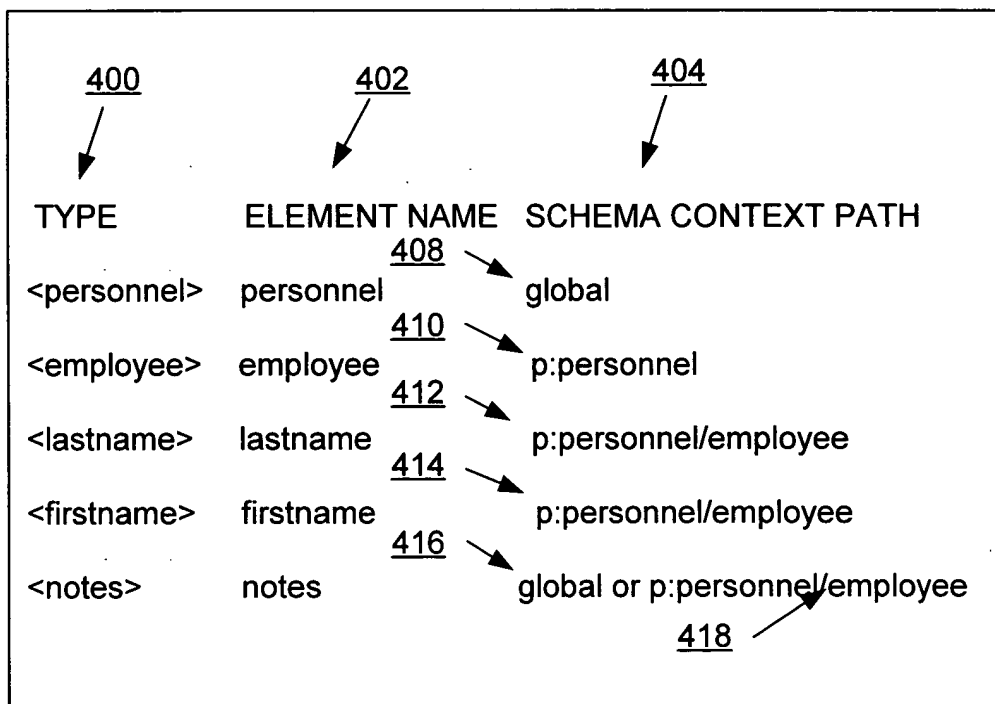


FIGURE 4

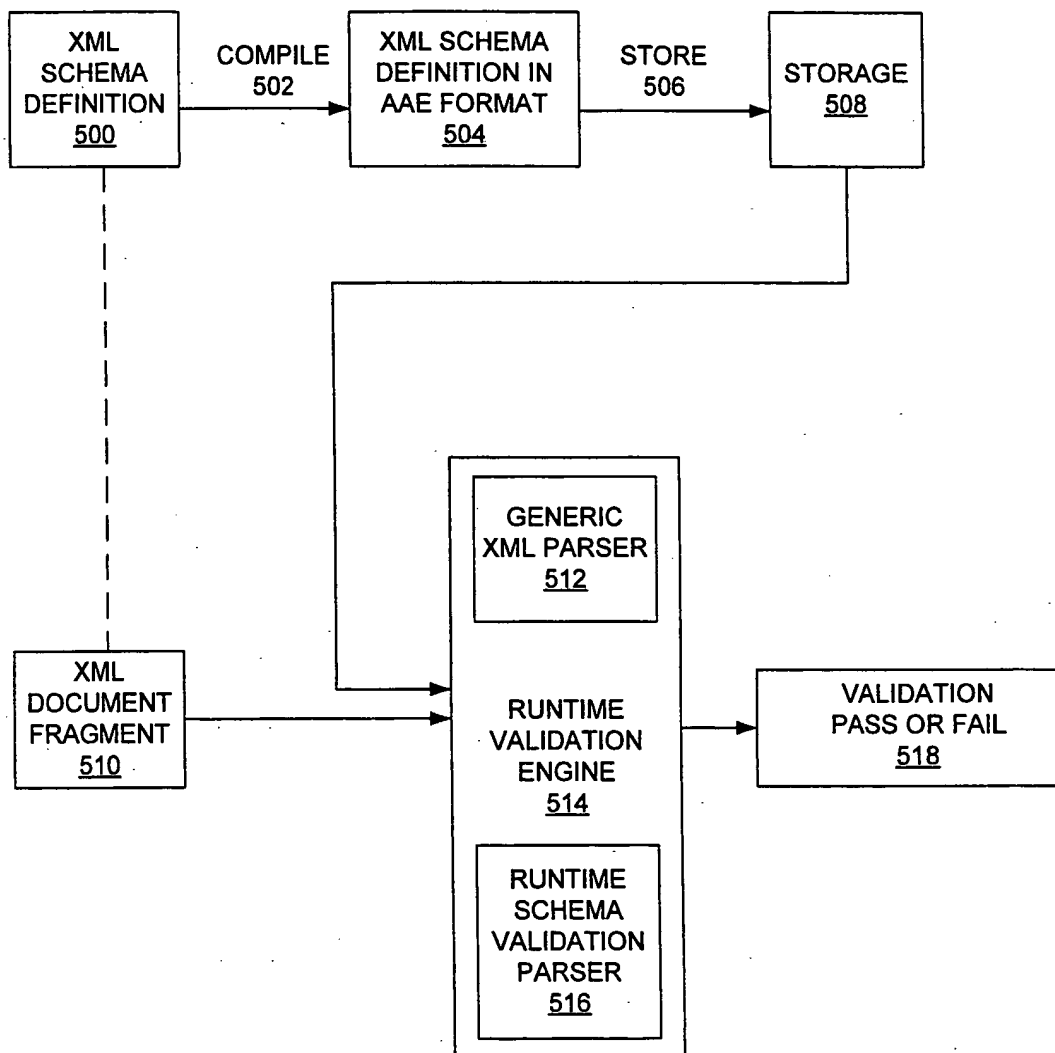


FIGURE 5

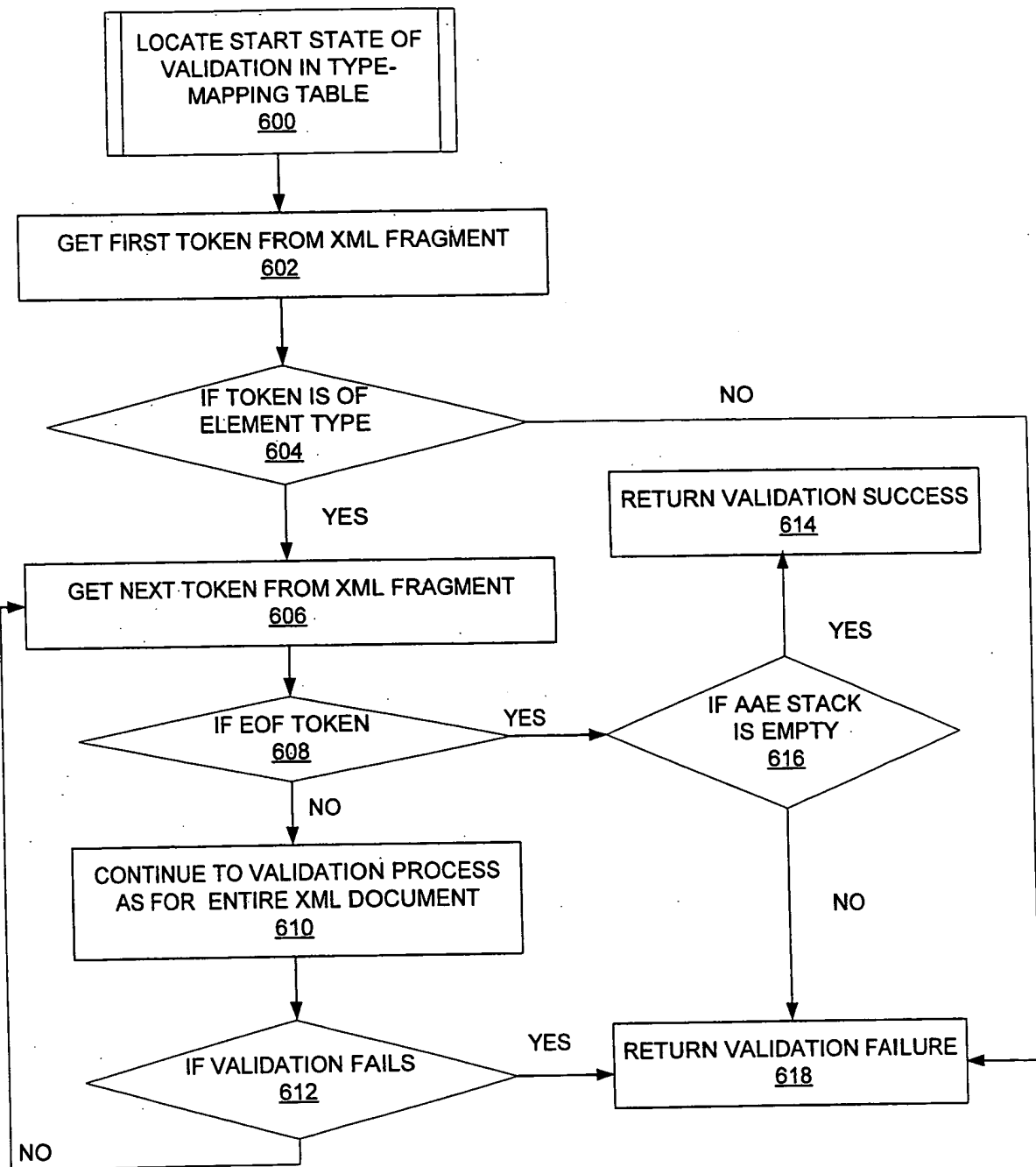


FIGURE 6

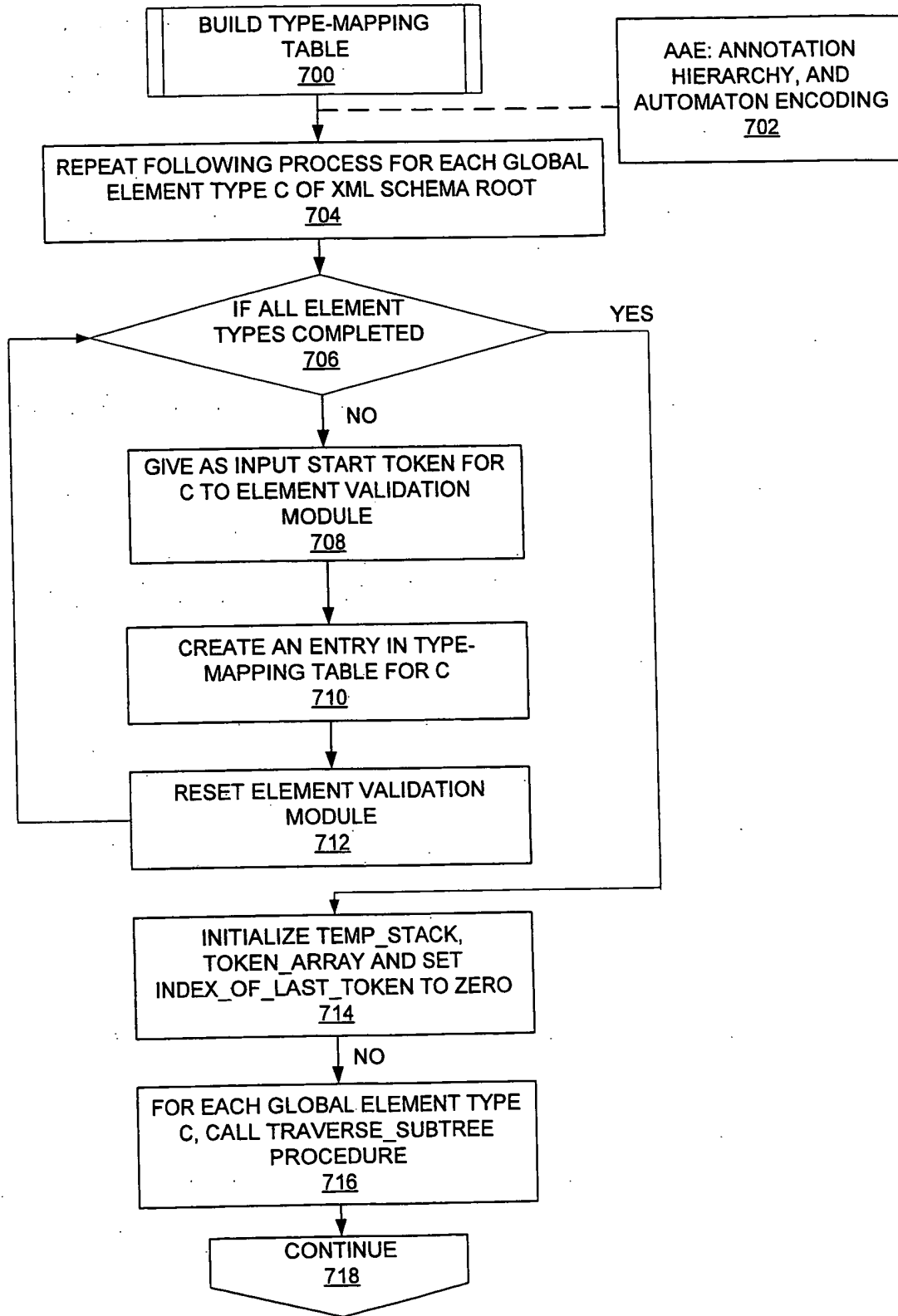


FIGURE 7A

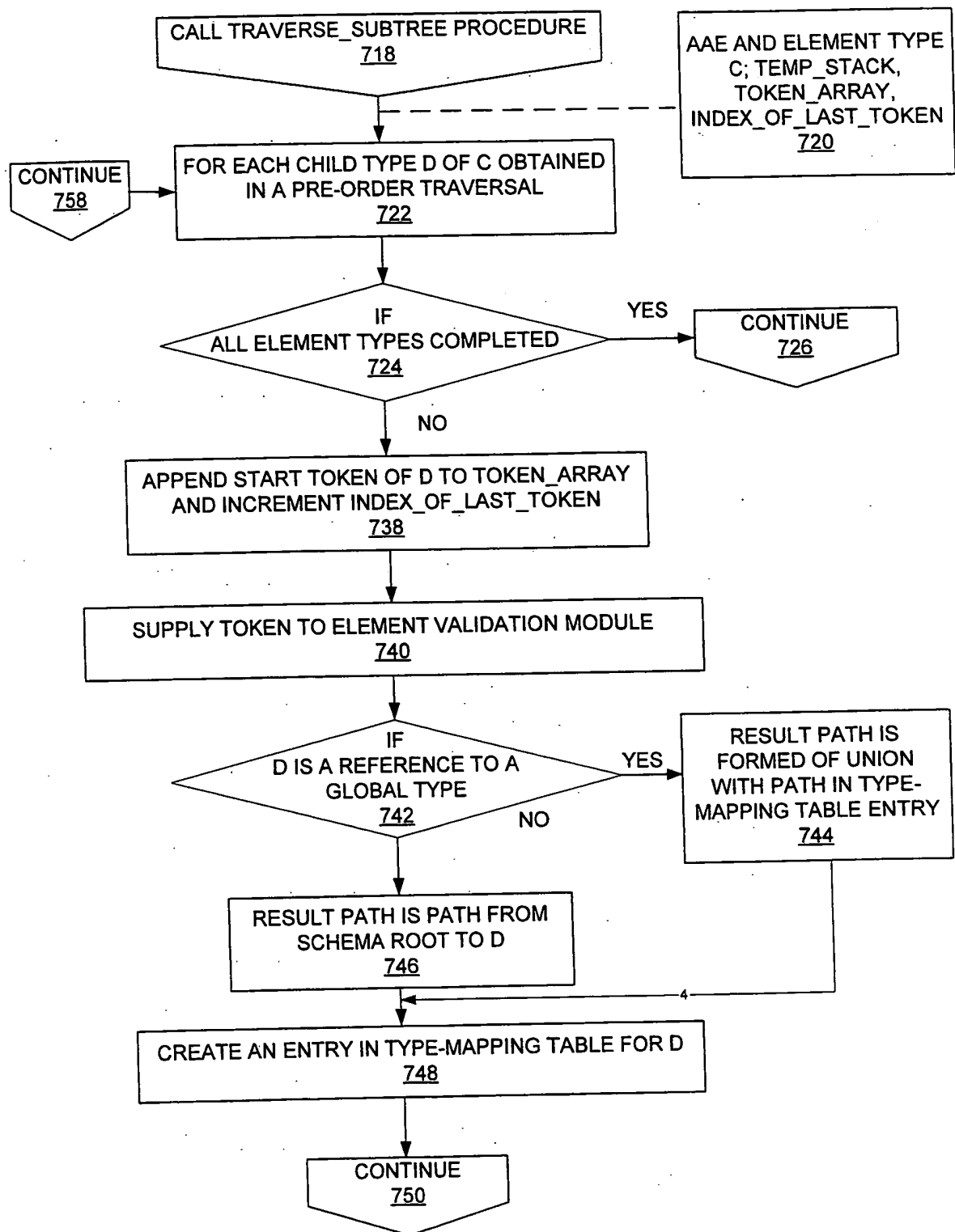


FIGURE 7B

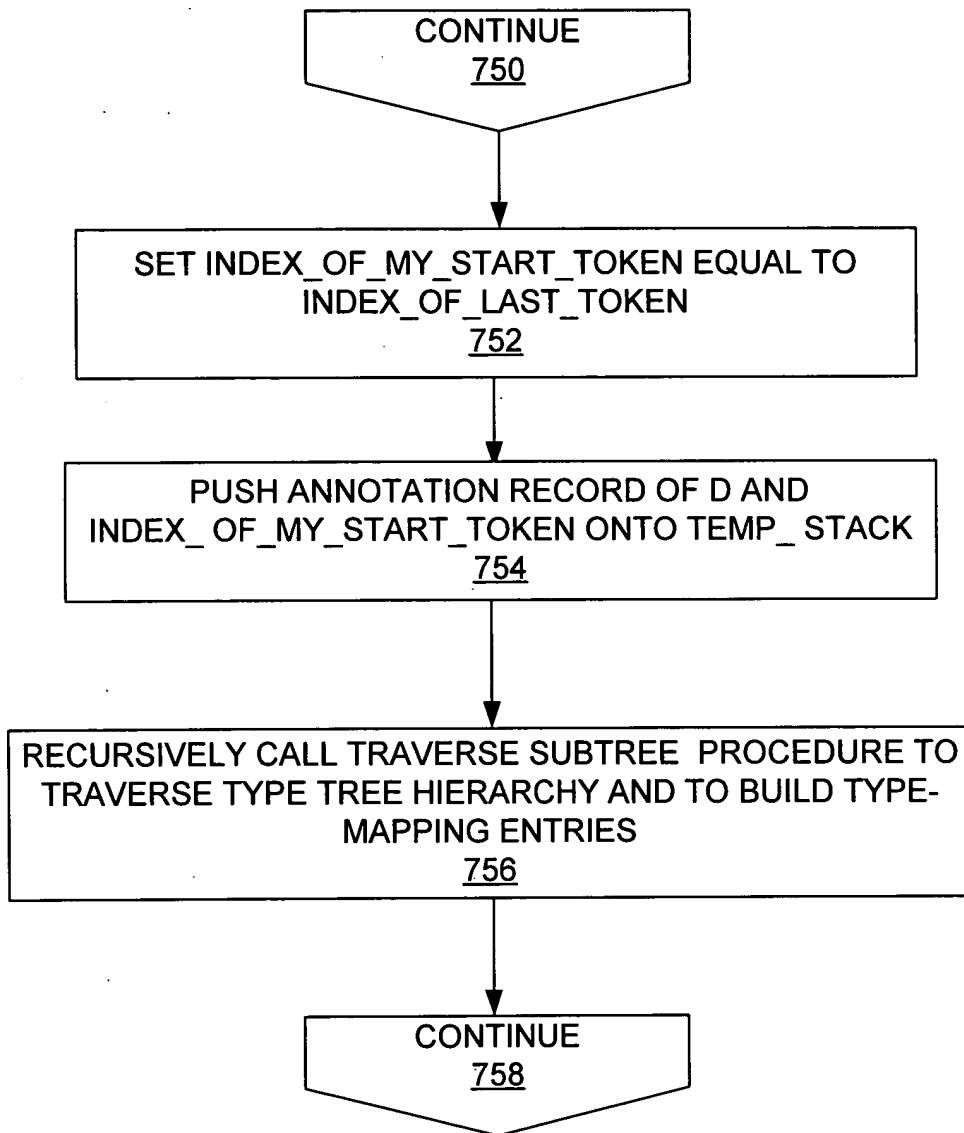


FIGURE 7C

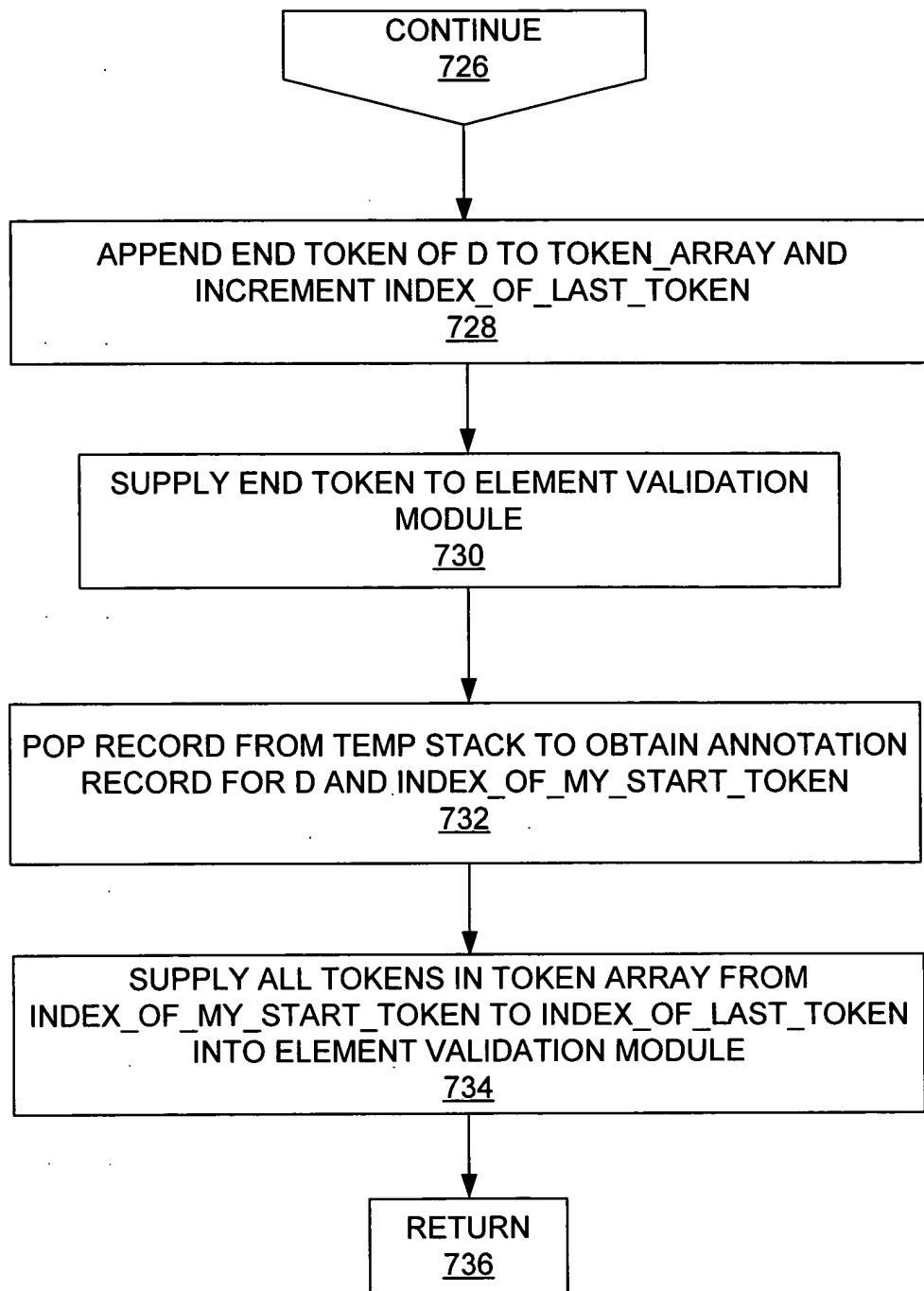


FIGURE 7D

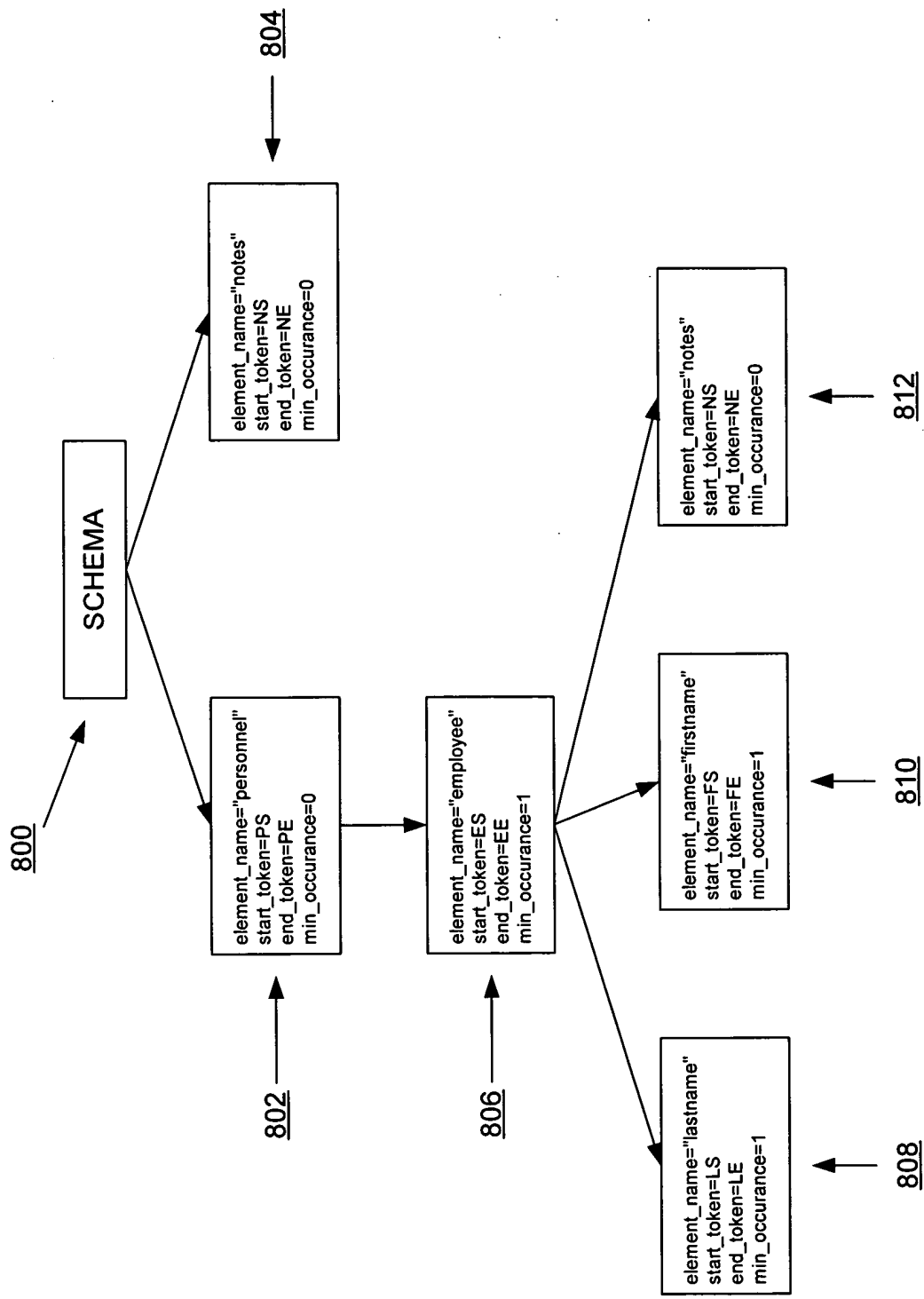
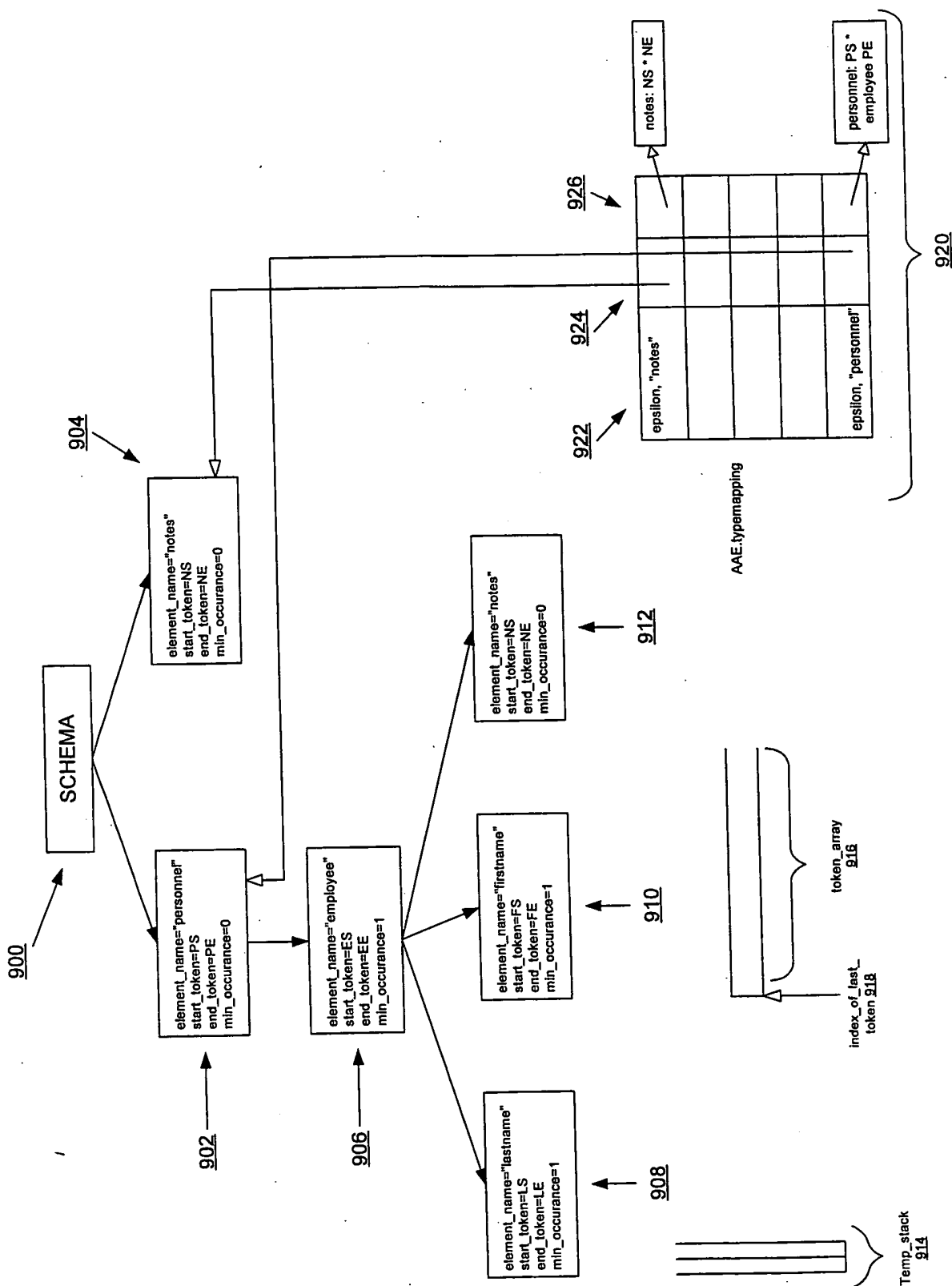


FIGURE 8



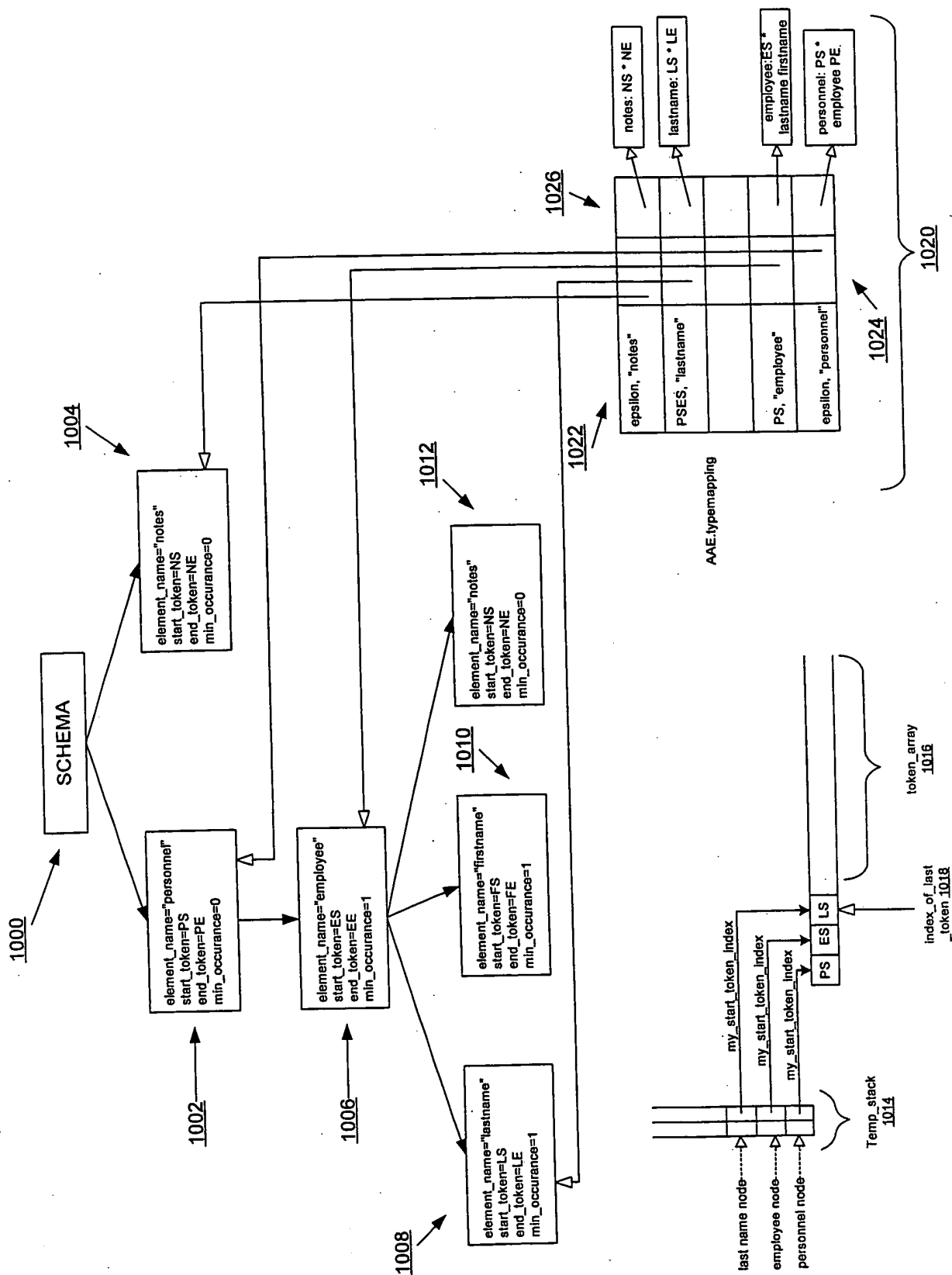


FIGURE 10

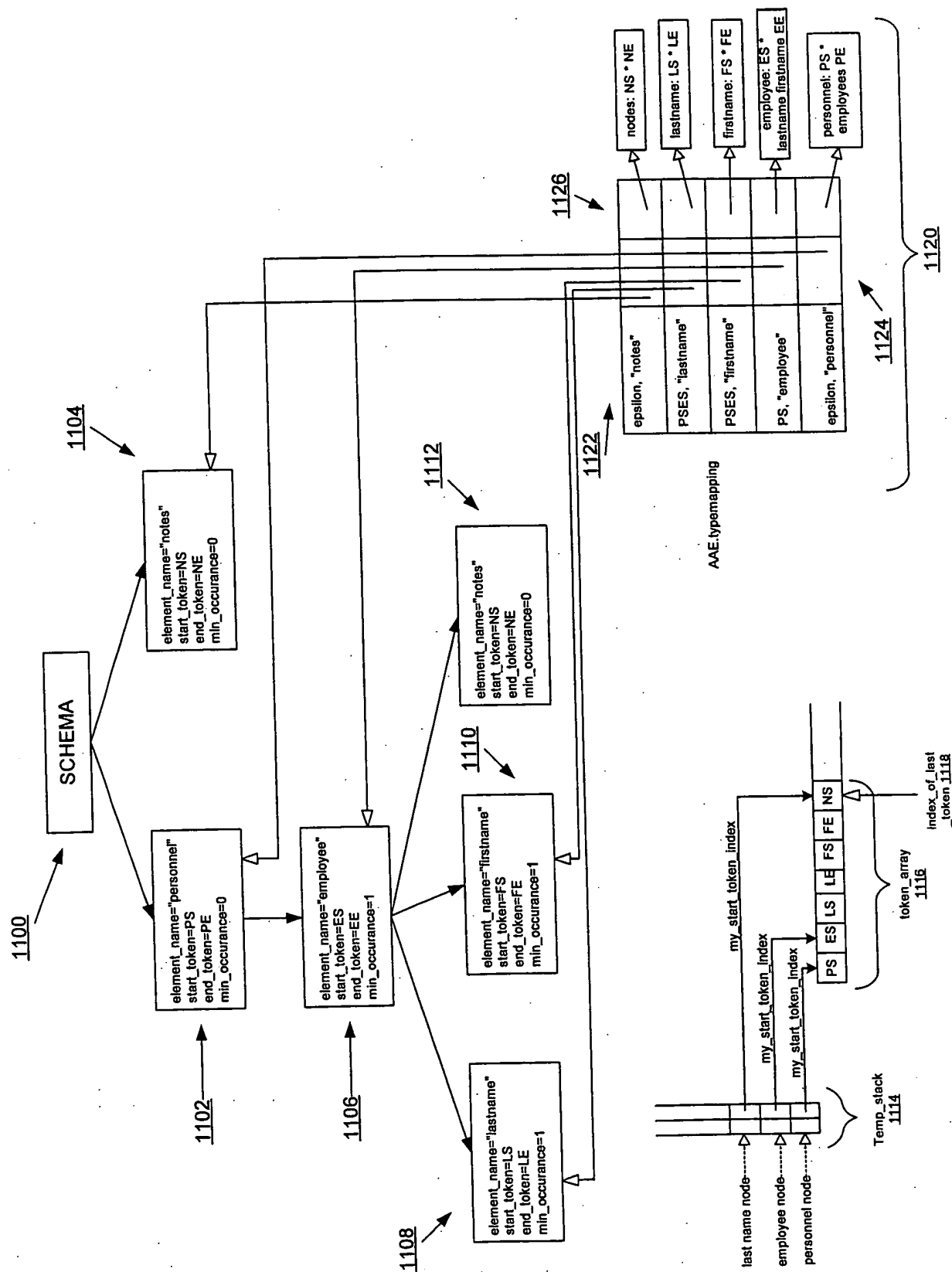


FIGURE 11